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MEDICINE

UNDER THE CHARGE OF

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Wassermann Reaction and its Application to Neurology.—Fildes and McIntosh (*Brain*, xxxvi, part ii, 193), maintaining that the mere report of a Wassermann reaction is of little value unless one knows the technique used in securing it, describe at some length the methods employed by them in the study of many neurological conditions. It is interesting that, as a result of careful studies, they have come to use, as an antigen, a cholesterinized alcoholic extract of fresh human heart. The advantages claimed are the great invariability of such antigens, and the fact that they give a much higher percentage of results in undoubted lues, while at the same time they manifest no tendency toward non-specificity findings quite in accord with those reported by Walker and Smith, Kolmer and others. They find that inactivation of sera causes a reduction in the amount of the reacting substances much greater than that observed in inactivated spinal fluids. The preliminary titrations, and dilutions are clearly explained. Their findings in the various stages of syphilis in general accord with those already reported: these in brief are: (1) The reaction is negative in non-syphilitic diseases of the central nervous system. (2) The occurrence of a positive reaction in the spinal fluid is indisputable evidence of a luetic infection. (3) The reaction in cerebrospinal lues varies much according to the location of the process, being inconstant, weak, or negative except when the spinal cord itself is involved, in which case the reaction is remarkedly strong. Moreover in this group of cases they find position reaction more often in cases showing recent lesions. (4) In general paresis a strong reaction is nearly always present in both serum and spinal fluid, the same being true of tabes unless examined after the disease has existed for some time or has been well treated. (5) So common is the occurrence of a positive reaction in the spinal fluid and a negative one in the serum, and *vice versa,* that the negative finding of one alone is insufficient evidence to exclude a luetic process. As regards the results of specific therapy the authors call particular attention to the fact that some cases of paresis and tabes should not be grouped as "true parasyphilitics," since some are really active cases of lues. They find indeed that the best therapeutic results are secured in those cases in which there is evidence of active meningeal involvement, cases which they regard as transition forms between true dementia paralytica and cerebrospinal syphilis. Treatment has little or no effect upon the Wassermann reaction in pure parasyphilitic cases, a result so different from that seen in cerebrospinal lues as to be of real value in a prognostic sense. It would seem that the rapidity with which a positive spinal fluid can be reduced to a negative state bears little relation to the duration of the infection; this is the reverse in the serum in which the chronicity of the disease varies directly with the speed of change of the reaction. The authors are of the opinion that the "salvarsan-provocative test" has been given an exaggerated diagnostic value.

The Pathological Excretion of Amino-acids.—LOBBE and BITH (*Arch. des malad. de Pappar. dig. et de la nutrit.*, vii, p. 681 to 688), have used a method modified from that of Jäger, in which 40 c.c. of urine are mixed with 10 c.c. of 5 per cent. magnesium hydrate and a few drops of phenolphthalein. After a few moments the solution takes on a rose-red color, showing that the acid of the urine has been neutralized. One now adds 10 c.c. of 10 per cent. sodium phosphate, allows the mixture to stand from two to three hours, and then filters. 15 c.c. of this filtrate are neutralized with one-fourth normal sulphuric acid, and after the addition of 5 c.c. of neutralized formol the resulting acidity is estimated, using one-tenth normal sodium hydroxide, 1 c.c. of which equals 0.0014 gm. of amino-acid nitrogen. Increased amino-acid excretion occurs in insufficient amino-acid destruction on the part of the liver, in cases where pathological destruction of proteids is going on, and third, in conditions of acidosis, whether diabetic or of another nature. Of 40 cases of hepatic disease, all cases which showed a marked injury to the tissues showed an equally marked increase of amino-acid in the urine. Normal values occur in uncomplicated gall-stones and catarrhal jaundice. The same is true in the cases of early Laennec's cirrhosis, but in the later stages of the disease the excretion is increased. Abnormally high values also occur in fatty degeneration, cases of primary tumor, cirrhosis secondary to cardiac disease, and in cases of phosphorus and chloroform poisoning. In cases of marked diabetic acidosis, values of from 0.92 to 3.04 gm. of amino-acid nitrogen per day were found, these values representing 8.4 to 18.4 of the total nitrogen output. In a number of diseases of the gastro-intestinl tract, in gout and chronic rheumatism, normal values were found. In those acute and chronic diseases which are accompanied by an abnormal breaking down of protein tissue, such as occur in the late stages of typhoid, in the crisis of pneumonia and during the absorption of pleuritic and other exudates, in leukemia, etc., constant increased